

Final Report for NASA grant NAG5-9211

The ADP grant NAG5-9211 entitled "A Search for Evidence of Non-Thermal Emission from the Supernova Remnants 37 A/B" was not used to support an analysis of the ASCA data for these two remnants because the ASCA mission ended before the remnants were observed. The grant was used to support similar research on two remnants in the Large Magellanic Cloud, N132D and N103B. An analysis of the Chandra data for these two remnants exhibits some evidence of non-thermal emission from small regions in the remnants. The X-ray spectra for these regions can not be adequately described by a single thermal X-ray emission model. However, if an X-ray synchrotron component is also included, the spectral data can be well described by the model and the values of the fit parameters are consistent with the values expected. These results were presented at the 199th Meeting of the American Astronomical Society. In summary, the grant has enabled us to strengthen the evidence that supernova remnants outside our Galaxy can also accelerate electrons to very-high energies. The results of this analysis will be published soon in the Astrophysical Journal.